

Amsterdam Climate Neutral 2050 Roadmap

Phase 1: An invitation to the city

Amsterdam wants to be an attractive city with excellent quality of life for everyone who lives, works or visits here. As the world has come to realise that we need to reduce our CO₂ emissions to reduce the planet's average temperature increases, Amsterdam City Council has set up the Amsterdam Climate Neutral 2050 programme, starting the irreversible transformation from coal, oil and gas to 100% clean energy. It's a major transition the like of which we have not seen since the industrial revolution. To realise this transition, the council cannot go it alone. This is why we are asking for your help, to give us your ideas and share your initiatives.

Amsterdam council wants to reduce CO₂ emissions in the city by 95% by 2050 when compared to 1990 levels, as well as completely phase out the use of natural gas before 2040. In recent years carbon emissions have just about remained level, so we will need to introduce radical change if we want to actually achieve these ambitious targets. So how are we going to make this work? The council has drafted a first outline of the road to change based on four sectors where this change needs to take place: the built environment, transport, electricity and industry & harbour. As the council we want to lead by example, so we are including our own organisation as a fifth sector of change.



Built environment

Share of total CO₂ emissions:
28%

What do we want to achieve?

All building stock in Amsterdam needs to be CO₂ neutral and natural gas free by 2040, including all homes, offices, business premises, hospitals, schools and other public properties. For existing properties as well as any new developments, we aim to:

- switch to sustainable energy
- reduce energy consumption

What are the challenges?

The largest part of the existing properties still need to be taken off the natural gas grid. In addition, it's important that residents and businesses invest in energy reduction. Currently there are 85,000 buildings connected to district heating systems, which is around 13% of the total building stock. In the meantime, the city is growing and more homes and offices are added.



Mobility

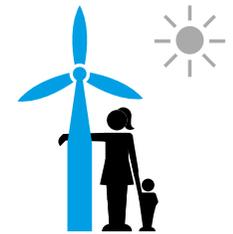
Share of total CO₂ emissions:
9%

What do we want to achieve?

Between 2025 and 2030, all traffic in Amsterdam will need to become emissions free, meaning all energy used for transport needs to be from sustainable sources. On top of this, we also need to contain the increase in traffic in the city and the region, in order to keep Amsterdam accessible, maintain the city's quality of life and make it a pleasant place to live, work and visit.

What are the challenges?

Traffic in the city is forecast to increase by 20 to 40% by 2040. If we do not act, traffic carbon emissions will go up as well. The main culprits are private cars, taxis and delivery vans, accounting for 88% of total traffic carbon emissions.



Electricity

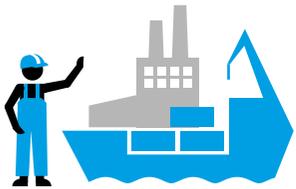
Share of total CO₂ emissions:
51%

What do we want to achieve?

Amsterdam will need to take any opportunity to generate sustainable energy, and make sure that all Amsterdammers can benefit, including people who are less well-off. Before 2022 we aim to install a minimum of 250 megawatts worth of solar and 17 megawatts of wind energy, which compares to one million solar panels and six wind turbines.

What are the challenges?

In the coming years, electricity consumption will rise for a number of reasons, one of which is the growth of electric transport. Therefore we will need an extensive scale-up of our electricity grid as well as a substantial increase in the share of sustainably generated energy. As we can generate only around 10 to 20% of the required amount of sustainable energy in Amsterdam itself, the rest will need to come from the region or wind turbines at sea.



Industry and harbour

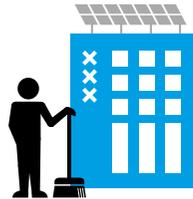
Share of total CO₂ emissions:
11%

What do we want to achieve?

Playing an increasingly important role in the production, storage and forwarding of sustainable energy in the short and medium term, Amsterdam's industry and harbour should be fully climate neutral by 2050. All industry should become circular, which means companies will increasingly produce less waste and use more waste as a source of production.

What are the challenges?

Many of the activities in industry and harbour still depend on fuels which emit CO₂. There is a growing awareness of sustainable issues, but the low prices for emitting CO₂ prevent the sector from making the switch to sustainable energy. In order to achieve the climate targets as laid down in the National Climate Agreement, the Hemweg power plant needs to be replaced with sustainable sources. Amsterdam's harbour and industry will serve as a sustainable battery storage and supply system for Amsterdam and the region.



The Council

Share of total CO₂ emissions:
1%

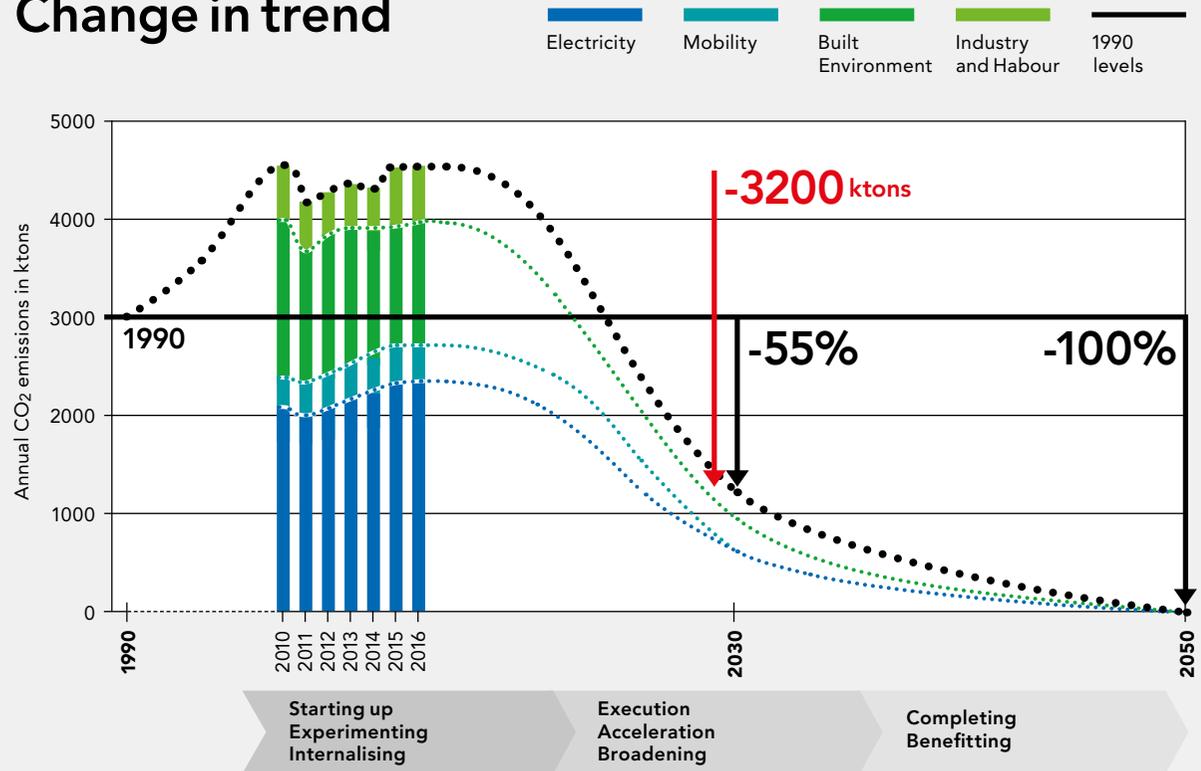
What do we want to achieve?

Amsterdam's municipal organisation needs to be climate neutral and natural gas free by 2030. This ambition has been laid down in the climate initiative drafted in early 2018. We will obtain our energy from sustainable sources, reduce waste and take steps towards a circular organisation.

What are the challenges?

The ambition to become climate neutral needs to play a central role in any project or activity that the council undertakes. We need to install solar panels on all council roofs, take all of our buildings off the gas grid and replace all street lights with LED or other sustainable alternatives.

Change in trend



Building a sustainable city together

We need everyone to take part and contribute. Whether you are a manager, employee, student, heating engineer, buyer, director, council worker, president of a residents' association, pub landlord or head of facilities at a hospital, everyone can take part and contribute, regardless of who they are and what they do. If we truly want to build a climate neutral city, we all need to reach out and start working together, not only locally within

Amsterdam itself, but also across the region, the country and beyond. The Mayor and Cabinet have set aside 150 million euros for sustainable initiatives. Many initiatives are already being developed across the city. In the end, a climate neutral Amsterdam will be the sum of all efforts, big and small. Together we will build a growing movement to make Amsterdam Climate Neutral. Come and join us!

Contact

If you have any questions or ideas you would like to share, or if you experience any problems or impediments related to Amsterdam's climate transition, please do not hesitate to contact us at: klimaatneutraal@amsterdam.nl. If you want to learn more, please go to www.amsterdam.nl/klimaatneutraal where you will also find the full version of the Amsterdam Climate Neutral 2050 Roadmap.